

**Request to Archive
With The National Centers for Environmental Information
For GCAD Annual Global Surface Temperature Anomaly Product
Provided by NCDC/GCAD/IAB**

2012-10-18

This information will be used by NCEI to conduct an appraisal and make a decision on the request.

1. Who is the primary point of contact for this request?

Jay Lawrimore

NCDC

Ingest and Analysis Branch Chief

+1 828-271-4750

jay.lawrimore@noaa.gov

2. Name the organization or group responsible for creating the dataset.

DOC/NOAA/NESDIS/NCDC > National Climatic Data Center, NESDIS, NOAA, U.S. Department of Commerce

3. Provide an overview summarizing the scope of data you want to archive. Describe the outputs, data variables, including their measurement resolution and coverage.

The GCAD global temperature time series is a NOAA reference data product. It is a blend of land surface temperatures from the

Global Historical Climate Network Monthly (GHCN M) and the sea surface temperatures determined using the extended reconstructed sea surface temperature (ERSST) analysis. This data are produced on a monthly basis by the NCDC/GCAD division. The product is generated by a series of processes that are managed independently for land and sea surface temperatures. These are then combined into a global blended dataset from which global and hemispheric surface temperature anomaly averages and time series

are calculated. These end product time series are the focus of this IA. An example of data product is available at: <http://www.ncdc.noaa.gov/isotc/service/global/global-land-ocean-mntp-anom/201001-201012.gif>

4. What is the time period covered by the dataset? (YYYY-MM-DD, YYYY-MM or YYYY)

From 1880-01-01

Ongoing as continuous updates to the data record

5. Edition or version number(s) of the dataset:

The global time series are not versioned. Only the underlying datasets.

6. Describe the level to which the data are processed. For example, are these unprocessed raw observations, derived parameters, quality controlled or inter-calibrated data, etc.?

Goes through a series of process steps including quality-control and interpolation. See Smith, et al. 2008.

7. Approximate date when the dataset was or will be released to the public:

1998-01-01

8. Who are the expected users of the archived data? How will the archived data be used?

Climate monitoring, scientific community, decision makers, media.

9. Has the dataset undergone user evaluation and/or an independent review process? Did NCEI participate in design reviews?

Several scientific peer-reviewed articles.

10. Describe the dataset's relationship to other archived datasets, such as earlier versions or related source data. If this is a new version, how does it improve upon the previous version(s)?

The global anomaly time series is the most visible product derived from land and ocean surface temperature measurements. It is produced from the GHCN-Monthly and ERSST datasets as described above.

11. List the input datasets and ancillary information used to produce the data.

There are two fundamental datasets used to create a third blended land/ocean dataset. It is from the blended grid that the global anomaly time series is created. The two fundamental datasets are GHCN-Monthly (currently version 3) and the ERSST (Extended Reconstructed Sea Surface Temperature) dataset. The ERSST dataset is a 2X2 gridded field of SST anomalies produced from the ICOADS dataset. The GHCN-Monthly station data are averaged into 5X5 grids (anomalies) and the gridded data are then merged with the ERSST gridded anomalies to produce the MLOST (Merged Land Ocean Surface Temperature) dataset. This is a 5X5 degree gridded field of anomalies over land and ocean.

12. List web pages and other links that provide information on the data.

Information on the global anomaly time series is provided online by the Climate Monitoring Branch on the climate anomalies page - <http://www.ncdc.noaa.gov/cmb-faq/anomalies.php>.

13. List the kinds of documents, metadata and code that are available for archiving. For example, data format specifications, user guides, algorithm documentation, metadata compliant with a standard such as ISO 19115, source code, platform/instrument metadata, data/process flow diagrams, etc.

1. All essential information is provided online - <http://www.ncdc.noaa.gov/cmb-faq/anomalies.php>.

14. Indicate the data file format(s).

1. ASCII

15. Are the data files compressed?

No

16. Provide details on how the files are named and how they are organized (e.g., file_name_pattern_YYYYMM.tar in monthly aggregations).

monthly.land.90S.90N.df_1901-2000mean.dat

monthly.ocean.90S.90N.df_1901-2000mean.dat

monthly.land_ocean.90S.90N.df_1901-2000mean.dat

monthly.land.0N.90N.df_1901-2000mean.dat

monthly.ocean.0N.90N.df_1901-2000mean.dat

monthly.land_ocean.0N.90N.df_1901-2000mean.dat

monthly.land.90S.0N.df_1901-2000mean.dat

monthly.ocean.90S.0N.df_1901-2000mean.dat

monthly.land_ocean.90S.0N.df_1901-2000mean.dat

annual.land.90S.90N.df_1901-2000mean.dat

annual.ocean.90S.90N.df_1901-2000mean.dat

annual.land_ocean.90S.90N.df_1901-2000mean.dat

17. Explain how to access sample data files and/or a file listing for previewing. If it is not available now, when will it be available?

The 12 files are located at <http://www.ncdc.noaa.gov/cmb-faq/anomalies.php#anomalies> .

18. What is the total data volume to be submitted?

Historic Data: all historic data or data submitted as a completed collection.

Total Data Volume: 50KB

Number of Data Files: 12

Continuous Data: data volume rate for a continuous data production.

Total Data Volume Rate: 50KB per Month

Data File Frequency: 12 per Month

Data Production Start: 1998-01-01

19. Are later updates, revisions or replacement files anticipated? If so, explain the conditions for submitting these additional data to the archive.

No additional updates, revisions or replacement data are anticipated.

20. Describe the server that will connect to the ingest server at NCEI for submitting the data.

Physical Location: Asheville

System Name: NCDC

System Owner: GCAD/IAB

Additional Information: Add comments as needed on applicable data types, etc.

21. What are the possible methods for submitting the data to NCEI? Select all that apply.

1. FTP PULL

2. FTP PUSH

22. Identify how you would like NCEI to distribute the data. Web access support depends on the resources available for the dataset.

1. Direct download links

23. Will there be any distribution, usage, or other restrictions that apply to the data in the archive?

Constraint Type	Description
Access	Release is contingent on the release of the monthly climate monitoring report.

24. Discuss the rationale for archiving the dataset and the anticipated benefits. Mention any risks associated with not archiving the dataset at NCEI.

Shows long term change in temperature record. Data product is shown in Climate Portal Dashboard. Used by CMB for placing climate in historical perspective.

25. Are the data archived at another facility or are there plans to do so? Please explain.

No

26. Is there an existing agreement or requirement driving this request to archive? Have you already contacted someone at NCEI?

No

27. Do you have a data management plan for your data?

No

28. Have funds been allocated to archive the data at NCEI?

Base funding

29. Identify the affiliated research project, its sponsor, and any project/grant ID as applicable.

GCAD Global Surface Annual Temperature Anomaly Project

30. Is there a desired deadline for NCEI to archive and provide access to the data?

Archive by: 2012-10-04

Accessible by:

31. Add any other pertinent information for this request.

None